Fred Smeds

Savage Island Farm, Fresno County

SAVAGE ISLAND FARM

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Cover Crops in Vineyards and Orchards

"How do you get the yields and quality you do with all the weeds and stuff you let grow in your vineyards and orchards?" a neighboring farmer asked Fred Smeds. The neighbor had been eyeing the lush cover crops in and bordering Savage Island Farm's orchards and vineyards and couldn't figure out how Smeds managed such good harvests without the traditional spraying.

Smeds hasn't used a pre-emergent herbicide for seven years. Now that he's seen the advantages of cover crops and beneficial insects and the big cost savings on pesticides, he considers himself a cover crop and biological control convert.

"On most farms," Fred explains, "your monocropped field will provide a feast for whatever pest loves to eat your crop. There isn't enough diverse, naturally occurring habitat to feed and house insects. Insects need diversity; a planted cover crop is essential."

Smeds observed that without plant diversity and a complex insect food chain, the pests thrive. "Every time you spray, you enhance conditions for them. The lack of natural enemies causes the pests to reproduce and each subsequent generation becomes more tolerant of the chemicals."

Smeds experimented with a five-acre block of ruby seedless grapes. The first year, after eliminating herbicides and pesticides, leafhopper damage reduced his packout rate by 10-to-15 percent. The second year, his losses were under 10 percent. "By the third year," Smeds explains, "the beneficial insects thriving in my crop cover drastically reduced leafhopper numbers and I had no packout losses." He reports similar successes in his peaches, cherries, and plums. The Thompson seedless grapes have required a longer transitional period. The only insecticides he's used on them since 1988 are Kryocide or Bacillus thuringiensis and he's working to eliminate these.

Since his first cover crop of barley and vetch, Smeds has tried a variety of flowering plant mixtures that bloom continuously through June. "I like to avoid mowing until after the plants have gone to seed. The plants form a dry mulch that holds down dust and keeps the soil intact for summer traffic. The seed lies dormant until an August or September irrigation sprouts it and I get next year's cover crop for free."

Since he's been providing habitat for the "good bugs," his vineyards and orchards have thrived. He's eliminated most chemicals and expensive spraying regimens. And he and his family have enjoyed another benefit: a noticeable increase in wildlife.

A walk through the vineyards and orchards produces views of doves, quail, pheasants, and several species of songbirds and birds of prey—so many that a biologist from the Kearney Agriculture Center asked permission to do a bird survey. "The minimal damage resident birds do to my fruit is acceptable," says Smeds. "because their claim on my trees clearly keeps away marauding flocks of fruit-eating birds. By contrast, when I drive by a farm that practices clean farming I often see huge flights of birds circling and trying to land. The wildlife gives me and my family a lot of pleasure—but they also provide a clear payoff that's reflected on my bottom line."